



**Imagen por  
Resonancia  
Magnética**

**Medica  
Sur**  
Excelencia médica, calidez humana

**Gregor Serša  
Editor-in-Chief,  
Radiology and Oncology**

October 14th, 2013

Dear Dr. Serša,

Please find enclosed our manuscript entitled "**Global measurements of DTI-derived axial diffusivity, CI and Cs tensor metrics differentiate glioblastoma multiforme versus normal brains by using linear discriminant analysis: introduction of a novel whole-brain approach**", which we would like to submit for publication as an **Original Article** in *Radiology and Oncology*.

Brain tumors such as glioblastoma multiforme (GBM) depict some histological features that would benefit more from a global rather than a regional evaluation: their infiltrative behavior is characterized by microscopic invasion of surrounding tissues, especially white matter tracts, for several centimeters from the obvious area of disease; it is currently accepted that this invasion is not able to be detected using conventional imaging protocols of magnetic resonance imaging.

This study complements a recent publication by our group (DOI 10.1007/s00330-012-2688-7), presenting a regional ROC curve analysis of DTI-derived tensor metrics, but now presenting a global (whole-brain) calculation of 11 tensor metrics: MD, FA, p, q, L, CI, Cs, Cp, RA, Rd and AD. We present a novel multivariate discriminant model, which has predictive ability; this approach allowed us to perform a simultaneous evaluation of DTI-derived tensor metrics, which is more integrative than previous publications using only ROC analyses.

This manuscript is part of my research project as a graduate student in the PhD program in Medical Sciences at the National Autonomous University of Mexico; knowing the results of this submission in the coming weeks, would help me apply for my final exam by the end of the year. I believed this study might be of interest for all clinicians dealing with brain tumors (neurosurgeons, pediatricians, oncologists, radio-oncologists, neurologists, geriatricians, neuroscientists, etc.).

As a premier international journal devoted to the rapid dissemination of significant medical knowledge, *Radiology and Oncology* represents the perfect platform for us to share our research with the international medical community. We confirm that this manuscript has not been published elsewhere and is not under consideration by another journal. All authors have approved the manuscript and agree with the submission to *Radiology and Oncology*. The authors have no conflicts of interest to declare.

Please address all correspondence to:

**Ernesto Roldan-Valadez, M.D., M.Sc.**  
**Coordination of Research and Innovation in MRI. Magnetic Resonance Unit, Medica Sur Clinic & Foundation.**  
**Puente de Piedra # 150. Toriello Guerra. Tlalpan. CP 14050.**  
**Mexico City, Mexico. Phone: (+52-55) 5424-7230.**  
**Email: [ernest.rolدان@usa.net](mailto:ernest.rolدان@usa.net)**

We shall look forward to hearing from you at your earliest convenience.

Yours sincerely,

Ernesto Roldan-Valadez, M.D., M.Sc.